

# Drought Information Statement for the Mid-South Valid 12/28/2023

Issued By: NWS Memphis, TN Contact Information: sr-meg.wx@noaa.gov

- This product will be updated January 11, 2024, or sooner if drought conditions change significantly.
- Please see all currently available products at <a href="https://drought.gov/drought-information-statements">https://drought.gov/drought-information-statements</a>.
- Please visit <a href="https://www.weather.gov/meg/DroughtInformationStatement">https://www.weather.gov/meg/DroughtInformationStatement</a> for previous statements.



Link to the latest U.S. Drought Monitor for the Mid-South

- DROUGHT CONDITIONS WORSEN
- Drought intensity and extent
  - D4 (Exceptional Drought): Continuing in north MS
  - D3 (Extreme Drought): Continuing in north MS and a most of west TN
  - D2 (Severe Drought): Continuing in east-central AR, extreme northwest MS, and portions of West TN
  - D1 (Moderate Drought): A swath in east-central AR and West TN, and the MO Bootheel
  - D0 (Abnormally Dry): A small swath mainly in northeast AR and the MO Bootheel

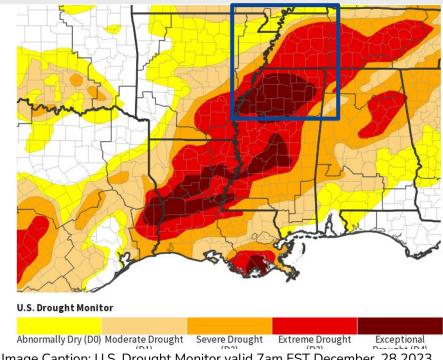


Image Caption: U.S. Drought Monitor valid 7am EST December, 28 2023

## Recent Change in Drought Intensity

Link to the latest 4-week change map for the Mid-South

- One-Week Drought Monitor Class Change
  - No change: Most of the Mid-South
  - Drought worsened: a portion in northeast Arkansas, a portion in west TN, and a swath across north Mississippi

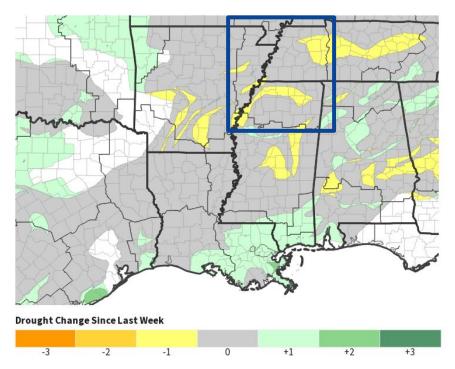


Image Caption: U.S. Drought Monitor 1-week change map valid 7 a.m. EST December 28, 2023

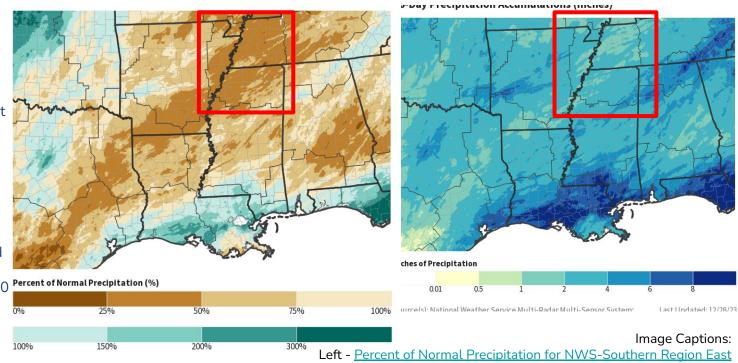




#### Over the past 30 days from the High Plains Regional Climate Center

- Precipitation totals generally ranged from 0.05-2" across the region with a small swath of 2-4". Northeast AR, the MO Bootheel, and far northwest TN experienced the lower precipitation amounts. This is reflected on the latest drought monitor where drought conditions have been expanded.
- The Mid-South experienced well-below normal precipitation over the last 30 days.

  Percent of Normal Precipitation (%)

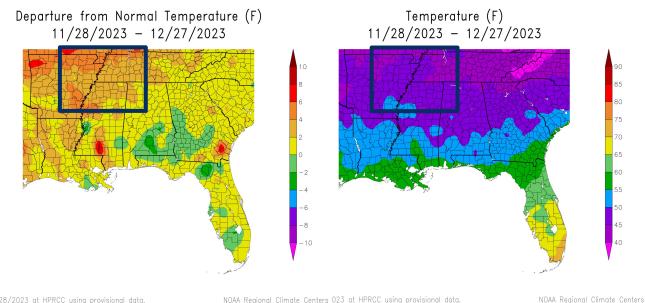




Right - <u>Precipitation for NWS- Southern Region East</u>
Data Courtesy High Plains Regional Climate Center.
Data over the past 30 days ending December 28, 2023

#### Data over the past 30 days from the High Plains Regional Climate Center

- Average temperatures have generally ranged from 45-55 degrees across the region over the last 30 days.
- Average temperatures ranged from normal to 1 to 6 degrees Fahrenheit above normal during this period.



Generated 12/28/2023 at HPRCC using provisional data.

Image Captions: Left - Departure from Normal Temperature Right - Average Temperature

Data Courtesy High Plains Regional Climate Center. Data over the past 30 days ending December 27, 2023





Links: See/submit Condition Monitoring Observer Reports (CMOR) and view the Drought Impacts Reporter

#### **Hydrologic Impacts**

• The Mississippi River at Memphis remains below low-water threshold values. The extended river forecast shows an increase in water due to snowmelt across the Northern Plains.

#### **Agricultural Impacts**

- Where some regions saw poor production, and in some cases, total loss, other pockets of the Mid-South reported above average yields or at least "better than expected yields" considering this season's drought.
- Supplemental feeding and watering of livestock is required across portions of north MS and West TN.
- Some reports in West TN depict ponds are drying up. Other reports state this is the earliest supplemental feeding in 20 or more years.

#### **Fire Hazard Impacts**

Normal wildland fire activity has been observed this month across the Mid-South. Normal wildland fire activity is
expected to start off the New Year.

#### **Other Impacts**

• There are no known additional impacts at this time.

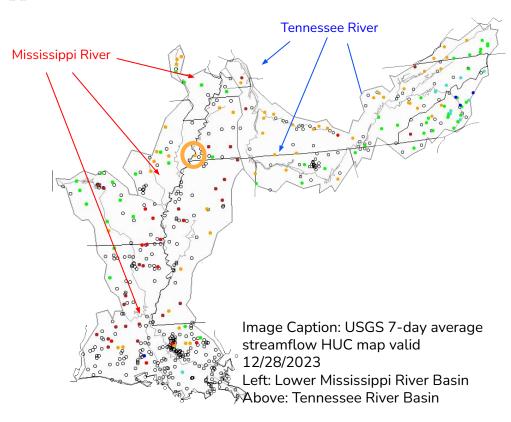
#### **Mitigation Actions**

• Please refer to your municipality and/or water provider for mitigation information.





# Hydrologic Conditions and Impacts

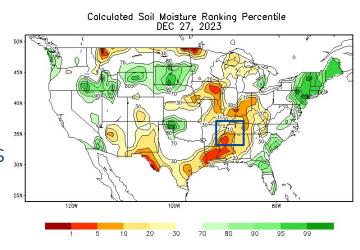


- The Mississippi River at Memphis is below low water threshold values.
   The extended river forecast depicts the river will rise due to upstream snowmelt.
- The Tennessee River feeds into the Mississippi River, and is also experiencing near to below normal water levels.



### **Agricultural Impacts**

- Soil moisture is roughly 10% of normal (or lower) across the entire Mid-South
- Crop yield has been negatively affected in a few areas in northwest MS
- Pastures in northwest MS and West TN are producing less feed for cattle than normal and require supplemental feeding



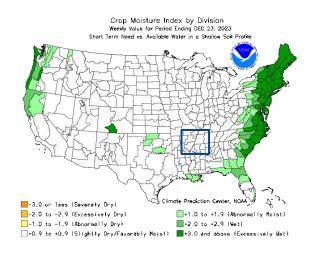


Image Captions:

Left: CPC Calculated Soil Moisture Ranking

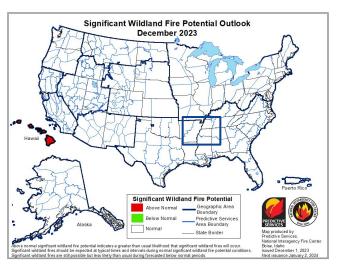
Percentile valid December 27, 2023

Right: <u>Crop Moisture Index by Division</u>. Weekly value for period ending December 23, 2023



Link to Wildfire Potential Outlooks from the National Interagency Coordination Center.

- Normal to above normal wildland fire potential is expected for the Mid-South during December. Below normal wildfire conditions are expected just to our west.
- Burn Bans currently in effect for:
  - Arkansas: None.
  - o Missouri: None.
  - o Mississippi: None.
  - Tennessee: None.



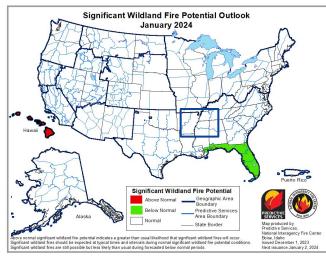


Image Caption: <u>Significant Wildland Fire</u>
<u>Potential Monthly Outlook</u> for December 2023

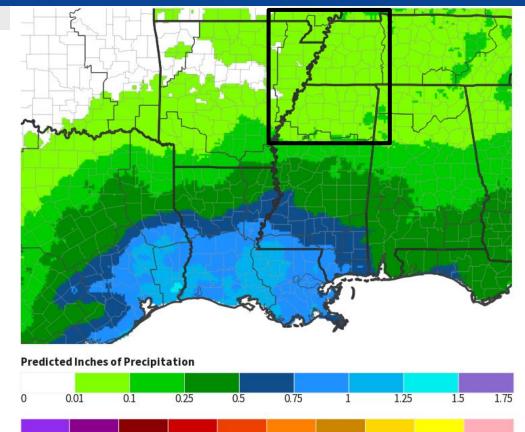


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# **Seven Day Precipitation Forecast**

- Rain chances are low across the Mid-South for the next seven days.
- Forecast precipitation amounts (QPF) are expected to be 0.10" or less.

Image Caption: National Weather Service Weather Prediction Center courtesy of drought.gov; 7-Day Quantitative Precipitation Forecast Valid December 29, 2023 through January 5, 2024





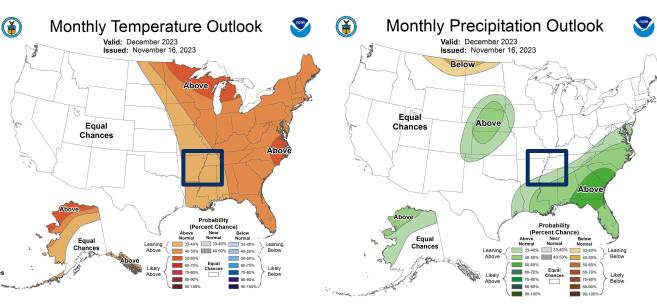
# Long-Range Outlooks

The latest monthly and seasonal outlooks can be found on the <a href="CPC homepage">CPC homepage</a>

 The entire Mid-South has a 33% chance for above normal temperatures for December.

 There is a 33-40% chance that December precipitation across north MS will be above normal. The rest of the Mid-South has equal chances to be above or below normal for precipitation.

 In summary, December is trending warmer than normal, but could be above or below normal precipitation.



#### Image Captions:

Left - <u>Climate Prediction Center Monthly Temperature Outlook.</u>
Right - <u>Climate Prediction Center Monthly Precipitation Outlook.</u>
Valid December 2023



The latest monthly and seasonal outlooks can be found on the CPC homepage

- Drought conditions are expected to improve across a large portion of the Mid-South.
- A small swath along Interstate-40 in northeast Arkansas and West Tennessee will likely end their drought conditions.

#### Links to the latest:

Climate Prediction Center Monthly Drought Outlook
Climate Prediction Center Seasonal Drought Outlook

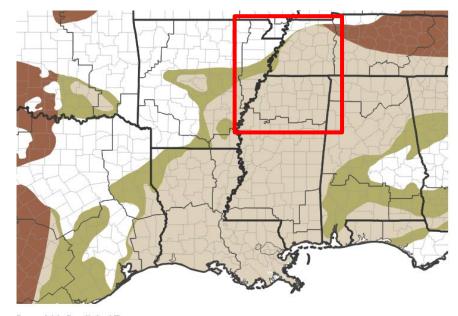






Image Caption:

Climate Prediction Center Monthly Drought Outlook Released 11/30/2023 valid for 12/2023

